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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,358	05/25/2005	Christophe Kopp	123236	5027

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EXAMINER	
BUI PHO, PASCAL M	
ART UNIT	**PAPER NUMBER**
2878	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,358	KOPP ET AL.	
	Examiner	Art Unit	
	Pascal M. Bui-Pho	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office action is responsive to communications filed on 21 February 2007. Presently, claims 10-18 remain pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim1 is objected to because of the following informalities: on line 1, "Optical device" should be changed to --An optical device--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10, 13, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yanagi (US 5,847,819).

With regards to claim 10, Yanagi discloses in Fig. 1 an optical device comprising: reflecting means (8a) arranged on the optical path of an incident beam emitted by a first optical source (5) so as to form a reflected light beam; a second optical source (4) producing a second light beam of different wavelength (Column 5, lines 1-4) so that the reflected beam and the second light beam pass through a zone (11) of the space wherein an object (13) to be analyzed is

to be exposed, and reach a common sensor (3), wherein the reflecting means are arranged proximate and outside of the optical path of the second beam and wherein the optical device comprises a collimating lens (9) common to the first and second sources and arranged at the intersection (it is herein considered that overlapping beams are a form of intersection) of the first incident beam and of the second beam.

With regards to claim 13, Yanagi discloses an optical device wherein the reflecting means (8a) are formed by a mirror (Column 5, lines 9-11).

With regards to claim 15, Yanagi discloses an optical device wherein the reflecting means (8a) are formed by a semi-reflecting plate; that is, with reflective and transmissive properties.

With regards to claim 18, Yanagi discloses an optical device wherein a lens (14) is arranged between the zone (11) of the space wherein the object (13) to be analyzed is to be exposed and the sensor (3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagi (US 5,847,819) in view of Reitsema (US 4,709,146).

With regards to claims 11 and 12, Yanagi discloses in Fig. 1 an optical device

comprising, among other features, reflecting means (8a), but lacks a clear specification of said means having means to deform and/or orient the reflecting means. In an analogous optics art, Reitsema discloses in Figs. 1 and 6 an optical device comprising, among other features, reflecting means (50A) with means to deform and/or orient the reflecting means (Column 5, lines 13-17). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Yanagi by incorporating well-known optics, as taught by Reitsema, in order to provide greater modulation control of the emitted light.

7. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagi (US 5,847,819) in view of Wieser et al. (US 5,608,220).

With regards to claims 14 and 16, Yanagi discloses in Fig. 1 an optical device comprising, among other features, reflecting means (8a), but lacks a clear disclosure of said means containing an absorbing element to absorb a part of a light radiation. In an analogous optics art, Wieser et al. disclose in Fig. 1 an optical device comprising, among other features, reflecting means (3) containing an absorbing element (4) to absorb a part of a light radiation (Se). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Yanagi by incorporating an absorption layer to the reflecting means, as taught by Wieser et al., in order to provide improved control of extraneous radiation (Column 1, lines 51-55).

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagi (US 5,847,819) in view of Hironori et al. (JP 09-197177).

With regards to claim 17, Yanagi discloses in Fig. 1 an optical device comprising,

among other features, a collimating lens (9), but lacks a clear specification of said lens being spherical. In an analogous optics art, Hironori et al. disclose in Fig. 1 an optical device comprising, among other features, a spherical collimating lens (3). At the time of the invention, selecting a specific collimating lens shape to direct light would have been obvious to one of ordinary skill in the art, as taught by Hironori et al. Hence, it would have been obvious to modify Yanagi accordingly in order to provide greater control of light modulation.

Response to Arguments

9. Applicant's arguments filed 21 February 2007 have been fully considered but they are not persuasive.

Applicants set forth the following arguments with regards to the applied Yanagi reference (US 5,847,819):

A) On Page 4, "As illustrated in Fig. 1 of Yanagi, the mirror surface 7a of dichroic prism 7 is not arranged proximate to and outside the optical path of the second beam, as positively recited in claim 10".

Response: Examiner respectfully disagrees with Applicants and directs Applicants to the above rejection, as well as in Fig. 1 of the Yanagi reference, wherein it is considered that mirror surface (8a) is arranged proximate to and outside the optical path of the second beam emitted by optical source (4). One of ordinary skill in the art would recognize that said second beam does not impinge upon prism (8) and/or mirror surface (8a), and rather transmits through prism (7). Therefore, mirror (8a) ***is*** arranged proximate and outside the optical path of the second beam, as claimed.

B) On Pages 4 and 5, "...mirror 8a does not cause reflected light to pass through a zone of the space wherein an object to be analyzed is to be exposed. Yanagi requires the use of mirror surface 7a to reflect a light beam to pass through a zone of the space wherein an object to be analyzed is to be exposed. Therefore, the mirror surface 8a of Yanagi cannot reasonably be considered to correspond to the reflecting means with all of the features as positively recited in the subject matter of the pending claims".

Response: Examiner respectfully disagrees and directs Applicants to Column 4, line 64 – Column 5, line 26 of the Yanagi reference wherein it is described that mirrors (7a, 8a) causes light emitted from optical source (5) to be reflected in order to pass through a zone (11) of the space wherein an object (13) is to be analyzed. One of ordinary skill in the art would recognize that a light beam emitted by optical source (5) reflects mirror (8a) prior to passing through said zone. Furthermore, the present claim language does not preclude the inclusion of multiple mirror surfaces to modulate the first light beam, as claimed.

C) On Page 5, "The mirror surface 7a of Yanagi is located within the optical path of the first light beam. This is in direct contrast to the subject matter recited in pending claim 10, that recites that the reflecting means are arranged proximate to and outside the optical path of the second beam".

Response: Examiner respectfully disagrees and directs Applicants to the above rejection and response corresponding to Argument A). It is herein considered that mirror surface (7a) is not part of the reflecting means presently claimed. One of ordinary skill in the art would recognize in Fig. 1 of the Yanagi reference that by prism (8) and mirror surface (8a) represent the

reflecting means presently claimed and are not located in the optical path of the second beam emitted by optical source (4).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone/Fax Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pascal M. Bui-Pho whose telephone number is (571) 272-2714. The examiner can normally be reached on Monday through Friday: 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pascal M. Bui-Pho
Examiner, Art Unit 2878
20 April 2007

THANH X. LUU
PRIMARY EXAMINER